Student Homework Sheet — Stage 01: Problem Framing & Scoping

Assignment (Due next class)

1. **Write a Project Scoping Paragraph (1–2 paragraphs)**
    - Define the problem.
    - Identify the primary stakeholder/end user.
    - Explain what kind of answer is useful (descriptive/predictive/causal; metric or artifact).
2. **Set Up & Share Your GitHub Repo**
    - Create folders: `/data/`, `/src/`, `/notebooks/`, `/docs/`.
    - Add `README.md` with your scoping paragraph and a goals→lifecycle→deliverables mapping.
    - Share repo link; add instructor/TAs as collaborators.
3. **Create a Stakeholder Context Artifact (choose one)**
    - Stakeholder memo (markdown), **or**
    - Framing slide (1-pager), **or**
    - Code comments at the top of your main notebook explaining the problem & goals.

Chain Statement

In the lecture, we learned to frame stakeholder-centered problems, surface assumptions, and map goals to lifecycle deliverables. **Now, you will adapt** that framing to produce a scoping paragraph, set up your repo, and create a stakeholder-facing artifact.

Step-by-Step Instructions

1. Draft your paragraph using the class worksheet headings.
2. Initialize your repo and create the folder tree.
3. Add a `README.md` using the provided template (below).
4. Commit with message: `Initial commit — project framing`.
5. Create your chosen stakeholder artifact; save it in `/docs/` (or at top of notebook).
6. Push to GitHub; submit the repo URL and (if external) a Google Drive link to the memo/slide.

README Template (copy into your repo)

```
# Project Title
**Stage:** Problem Framing & Scoping (Stage 01)

## Problem Statement
<1–2 paragraphs: what problem & why it matters>

## Stakeholder & User
```

```
<Who decides? Who uses the output? Timing & workflow context>

## Useful Answer & Decision
<Descriptive / Predictive / Causal; metric; artifact to deliver>

## Assumptions & Constraints
<Bullets: data availability, capacity, latency, compliance, etc.>

## Known Unknowns / Risks
<Bullets: what's uncertain; how you'll test or monitor>

## Lifecycle Mapping
Goal → Stage → Deliverable
- <Goal A> → Problem Framing & Scoping (Stage 01) → <Deliverable X>
- ...

## Repo Plan
/data/, /src/, /notebooks/, /docs/ ; cadence for updates
```

Grading Rubric (100 points)

- **Clarity of Problem (20 pts):** Specific, decision-linked, measurable success criteria.
- **Stakeholder & User (20 pts):** Correctly identified, roles separated if different.
- **Useful Answer (20 pts):** Appropriate framing (desc/pred/causal) with metric/artifact.
- **Assumptions & Constraints (20 pts):** Realistic and relevant.
- **Repo Setup & README (20 pts):** Correct structure, clean README, working link.

Stretch Recognition (+1 bonus): Well-crafted persona or slide with concrete pain points and decisions.

Example Submission Expectations

- 1–2 paragraph scoping text in README and/or a Google Doc link.
- GitHub repo with folder tree and initial commit history.
- A stakeholder memo (md) in `/docs/` *or* a screenshot/pdf of a 1-pager slide *or* clear top-of-notebook comments.

Submission Format: Post repo URL in the appropriate spot on the shared google sheet by next class.